REMARKS

Reconsideration of the above-identified patent application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-8, 10, 11, 14-21, 24-39 and 41-54 are in this case. Claims 47-51, 53 and 54 have been rejected under § 102(e). Claims 1-8, 10, 11, 14-21, 24-39, 41-46 and 52 have been rejected under § 103(a). Independent claims 47-52 have been canceled. New independent claim 55 has been added.

The claims before the Examiner are directed toward a device and system for digital rights management and a method of their use. The system includes the device and a server. Encrypted digital data stored at the server. The device includes an integrated circuit that includes a processor and a player. The device also includes a flash memory. The processor requests the server to transmit the encrypted digital data to the device, and decrypts the data. The encrypted data are stored in the flash memory. The player transforms the decrypted data to analog signals.

§ 102(e) Rejections – Tagawa et al. '773

The Examiner has rejected claims 47-49 under § 102(e) as being anticipated by Tagawa et al., US Patent No. 6,636,773. The Examiner's rejection is respectfully traversed.

Claims 47-49 now have been canceled, thereby rendering moot the Examiner's rejection of these claims.

§ 102(e) Rejections – Davis '879

The Examiner has rejected claims 50, 51, 53 and 54 under § 102(e) as being anticipated by Davis, US Patent No. 5,825,879 (henceforth, "Davis '879"). The Examiner's rejection is respectfully traversed.

Claims 50 and 51 now have been canceled, thereby rendering moot the Examiner's rejection of these claims.

Davis '879 teaches a secure video content processor (SVCP) **302** that receives encrypted video content **308** from an outside source **120**, decrypts and decompresses encrypted video content **308** using decryption and decompression circuitry **312**, generates corresponding video frames using a graphics processor **316**, and uses a D/A converter **326** to convert the video frames to analog signals for display on a display device **332**. As needed, video frames are encrypted using a frame data encryptor **320**, stored temporarily in a frame buffer **300** outside of SVCP **302**, recovered from frame buffer **302** and decrypted using a frame data decryptor **324**.

The step of claim 53 that renders this claim patentably distinct from Davis '879 is step (e):

> storing <u>said received encrypted digital data</u> in a memory separate from said integrated circuit, by said processor (emphasis added)

By contrast, in the invention of Davis '879, the encrypted digital data that are received by SVCP **302** are *not the same* as the encrypted digital data that are stored in frame buffer **300** by SVCP **302**. In Davis '879, the received encrypted video content **308** is decompressed by decompression circuitry **312**, converted into video frames by graphics processor **316**, encrypted by frame data encryptor **320**, and only then is stored in frame buffer **300**.

Thus, the present invention, as recited in claim 53, is not anticipated by Davis '879. Furthermore, the present invention, as recited in claim 53, is not even obvious from Davis '879. There is neither a hint nor a suggestion in Davis '879 of any utility to requesting and receiving encrypted digital data from a server by a processor and then storing *the same* encrypted digital data in a memory separate from the processor.

The step of claim 54 that renders this claim patentably distinct from Davis '879 is step (d):

> storing said at least one key in a nonvolatile memory <u>that is separate from said integrated circuit</u> (emphasis added)

By contrast, Davis '879 stores the key for decrypting encrypted video content **308** in SVCP **302** that decrypts encrypted video content **308**. This is stated explicitly in column 3 lines 28-31:

> ...the provider transfers a cryptographic key either <u>to the SVCP directly</u> through a connecting cable...or to the user who subsequently <u>loads the cryptographic key into the SVCP</u>. (emphasis added)

Thus, the present invention, as recited in claim 54, is not anticipated by Davis '879. Furthermore, the present invention, as recited in claim 54, is not even obvious from Davis '879. There is neither a hint nor a suggestion in Davis '879 of any need to store the key for decrypting encrypted video content **308** outside of SVCP **302**. Indeed, Davis '879 teaches, at least by implication, against storing the key for decrypting encrypted video content **308** outside of SVCP **302**. It is clear from Davis '879 that Davis '879 would rather store *everything* received from outside source **120** in SVCP **302**, just as Davis '879 does in a different embodiment of his invention, SVCP **200**. The *only* reason for having frame buffer **300** separate from SVCP **302** is that frame buffer **300** is too large to fit inside SVCP **302**, as stated in column 5 lines 12-17:

> Often, the memory requirements of the SVCP **200** exceed that which can be conveniently fabricated in a frame buffer **234** on the SVCP **200**. Thus it may be necessary to place the frame buffer outside the hardware barrier **304** surrounding the SVCP **302** as shown in FIG. 3 as secure frame buffer **300**.

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§ 103(a) Rejections – Davis '879 in view of Kihara et al. '097

The Examiner has rejected claims 1-6, 10, 11, 14, 17-21, 24, 25, 28-31, 33, 34, 36-39, and 41-46 under § 103(a) as being unpatentable over Davis '879 in view of Kihara et al., US Patent No. 6,212,097 (henceforth, "Kihara et al. '097"). The Examiner's rejection is respectfully traversed.

Kihara et al. '097 teach a flash memory card **40** whose files can be recovered even if the File Allocation Table (FAT) of the memory card is inadvertently destroyed. The Examiner has cited Kihara et al. '097 only to show that it is known to store encrypted digital data in a flash memory.

Applicant concedes that it is known in the prior art to store encrypted digital data in a flash memory. Nevertheless, it is improper to combine Davis '879 with Kihara et al. '097 to reject independent claims 1, 17 and 28. For a combination of two prior art references to render a claim unpatentable, there must be a reasonable expectation of success. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and *In re Reinhart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). In the present case, one ordinarily skilled in the art would not substitute a flash memory for frame buffer **300** of Davis '879 because a flash memory would be too slow to serve as a frame buffer for video frames. Consider, for example, a video frame intended for display on a display device **332** with a resolution of 1024 x 1280 pixels and that supports 64K colors (two eight-bit bytes per pixels), at a refresh rate of 30 frames per second. Each frame includes 1024 x 1280 x 2 = 2,621,440 bytes. The rate at which data must be written to and read from frame buffer **300** therefore is approximately 78.6 Mbytes per second. No currently available flash disk can be written and then read that fast. The top speed for merely writing to the fastest currently available NAND flash memory is only on the order of a few Mbytes per second. The NAND

flash memories that were available on the priority date of the above-referenced patent application were even slower. Writing to a NOR flash memory is slower than writing to a NAND flash memory. On the priority date of the above-referenced patent application, flash memories were simply too slow to be substituted for frame buffer **300**.

It follows that independent claims 1, 17 and 28 are allowable in their present form over the prior art cited by the Examiner. It further follows that claims 2-6, 10, 11, 14, 18-21, 24, 25, 29-31, 33, 34, 36-39 and 41-46, that depend therefrom, also are allowable.

§ 103(a) Rejections – Davis '879 in view of Kihara et al. '097 and further in view of Dlugosch '146

The Examiner has rejected claims 7 and 8 under § 103(a) as being unpatentable over Davis '879 in view of Kihara et al. '097 and further in view of Dlugosch, US Patent No. 6,789,146.. The Examiner's rejection is respectfully traversed.

It is demonstrated above that independent claim 1 is allowable in its present form. It follows that claims 7 and 8, that depend therefrom, also are allowable.

§ 103(a) Rejections – Davis '879

The Examiner has rejected claims 15, 16, 26, 27, 32, 35 and 52 under § 103(a) as being unpatentable over Davis '879. The Examiner's rejection is respectfully traversed.

Claim 52 now has been canceled, thereby rendering moot the Examiner's rejection of this claim.

It is demonstrated above that independent claims 1, 17 and 28 are allowable in their present form. It follows that claims 15, 16, 26, 27, 32 and 35, that depend therefrom, also are allowable.

New Claim

To further distinguish the present invention from the prior art cited by the Examiner, new claim 55 has been added.

New claim 55 is claim 28 as amended in response to the Office Action mailed January 26, 2005, except for the final step of storing the encrypted digital data in a flash memory, and with the additional step of receiving the encrypted digital data from the server by the processor and the additional limitation that the decryption of the encrypted digital data by the processor and the transformation of the decrypted digital data to analog signals by the player are effected only after all the encrypted digital data have been received from the server. Support for the new step of receiving the encrypted digital data from the server is found in the specification on page 13 lines 7-8:

> Processor **32** receives the requested encrypted digital data via transceiver **12** and controller **16**...

Support for the decryption and transformation being effected only after all the encrypted digital data have been received is found in the description of the prior art of which the present invention is an improvement. This prior art is described in the specification on page 2 line 18 through page 3 line 4 as follows:

> Using transceiver **12** and antenna **14**, controller **16** transmits to server **48** at base station **46** a request (including user identification and payment instructions) to download encrypted digital audio or video data. In response, server **48** transmits the encrypted digital audio data back to mobile telephone **10**. Controller **16** uses antenna **14** and transceiver **12** to receive the encrypted digital data, and then stores the encrypted digital data in a non-volatile memory **22** that could be, for example, a magnetic hard disk, a flash memory or an

EEPROM....When the user of mobile telephone 10 wishes to play the data, controller 16 retrieves the encrypted digital data from memory 22. The encrypted digital data then are decrypted by SIM 18, and the decrypted digital data are sent to a player 20. (emphasis added)

In other words, the user of mobile telephone 10 *first* downloads all the encrypted digital data from server 48 and *later* decrypts and plays the data. All the present invention does in this regard, as stated on page 10 lines 20-22 of the specification, is substitute ASIC 30 and flash memory 38 for SIM 18 and player 20 of prior art mobile telephone 10. Like the user of prior art mobile telephone 10, a user of remote platform 28 of the present invention *first* downloads encrypted digital data from server 50 and *later* decrypts and plays the data. By contrast, Davis '879 uses frame buffer 300 to *buffer* frames of video data that are displayed on display 332. *While encrypted video content 308 is being received from outside source 120*, digital image frames are encrypted by frame data encryptor 320, stored temporarily in frame buffer 300, retrieved from frame buffer 300, decrypted by frame data decryptor 324 and displayed on display 332.

Amendments to the Specification

An inadvertent typographical error on page 13 line 12 has been corrected.

No new matter has been added.

Amendments to the Figures

An inadvertent typographical error in Figure 2 (reference numeral 34 for the coprocessor instead of reference numeral 36) has been corrected.

No new matter has been added.

In view of the above amendments and remarks it is respectfully submitted that independent claims 1, 17, 28 and 53-55, and hence dependent claims 2-8, 10, 11, 14-16, 18-21, 24-39 and 41-46 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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